

CLAIMS

We claim:

1. A sealed chain link assembly comprising:

a first molded single piece link having a pair of first sidebars joined by a first barrel, each first sidebar including first and second ends joined by an inner surface and an outer surface, said inner surface of one of said first sidebars facing the inner surface of the other of said first sidebars, said first ends defining coaxial first apertures coaxial with said first barrel, and said second ends defining coaxial second apertures, each first sidebar further including an annular receptacle formed in at least one of said inner surface and surrounding said second aperture and said outer surface and surrounding said first aperture;

a second molded single piece link having a pair of second sidebars joined by a second barrel, each second sidebar including first and second ends joined by an inner surface and an outer surface, said inner surface of one of said second sidebars facing the inner surface of the other of said second sidebars, said second sidebar first ends defining coaxial first apertures coaxial with said second barrel and said second apertures of said first link, and said second ends of said second sidebars defining coaxial second apertures coaxial with said first apertures of said first link, each second sidebar further including a substantially flat portion facing one of said annular receptacles formed in said one of said inner and outer surfaces of said first link;

a sealing member disposed in each of said receptacles and engaging said facing flat portion to seal the joint between said first and second links; and

a pin extending through said first apertures and first barrel of said first link and said second apertures of said second link to pivotally join said first link to said second link.

2. The sealed chain assembly as in claim 1, in which said sealing members are embedded in each of said sidebars.

3. The sealed chain assembly as in claim 1, in which said pin is rotatably fixed relative to said second link.

4. The sealed chain assembly as in claim 3, including a wall extending axially from said outer wall adjacent said second aperture of at least one of said sidebars of said second link, said wall engaging said pin to prevent rotation of said pin relative to said second link.

5. The sealed chain assembly as in claim 3, in which said pin sealingly engages at least one of said second apertures of said second link.

6. The sealed chain assembly as in claim 1, in which said at least one of said first and second links is molded from a plastic material.

7. The sealed chain assembly as in claim 1, in which said annular receptacle is radially spaced from said aperture around which it surrounds.

8. A chain link assembly comprising:

a first link having a pair of first sidebars joined by a first barrel, each first sidebar including first and second ends joined by an inner surface and an outer surface, said inner surface of one of said first sidebars facing the inner surface of the other of said first sidebars, said first ends defining coaxial first apertures coaxial with said first barrel, and said second ends defining coaxial second apertures;

a second link having a pair of second sidebars joined by a second barrel, each second sidebar including first and second ends joined by an inner surface and an outer surface, said inner surface of one of said second sidebars facing the inner surface of the other of said second sidebars, said second sidebar first ends defining coaxial first apertures coaxial with said second barrel and said second apertures of said first link, and said second ends of said second sidebars defining coaxial second apertures coaxial with said first apertures of said first link; and

a pin extending through said first apertures and first barrel of said first link and said second apertures of said second link to pivotally join said first link to said second link, said pin rotatably fixed relative to said second link to prevent rotation of said pin relative to said second link.

9. The chain link assembly as in claim 8, in which each first sidebar includes an annular receptacle formed in at least one of said inner surface and surrounding said second aperture and said outer surface and surrounding said first aperture, and a sealing member is disposed in said receptacle and engages a flat surface formed on said second link to seal the joint between said first and second links.

10. The chain assembly as in claim 9, in which said sealing members are embedded in each of said sidebars.

11. The sealed chain assembly as in claim 9, in which said annular receptacle is radially spaced from said aperture around which it surrounds.

12. The sealed chain assembly as in claim 8, including a wall extending axially from said outer wall adjacent said second aperture of at least one of said sidebars of said second link, said wall engaging said pin to prevent rotation of said pin relative to said second link.

13. The sealed chain assembly as in claim 8, in which said pin sealingly engages at least one of said second apertures of said second link.

14. The sealed chain assembly as in claim 8, in which at least one of said first and second links is molded as a single piece from a plastic material.

15. A chain link assembly comprising:

a first link having a pair of first sidebars joined by a first barrel, each first sidebar including first and second ends joined by an inner surface and an outer surface, said inner surface of one of said first sidebars facing the inner surface of the other of said first sidebars, said first ends defining coaxial first apertures coaxial with said first barrel, and said second ends defining coaxial second apertures, each first sidebar further including an annular receptacle formed in at least one of said inner surface and surrounding said second aperture and said outer surface and surrounding said first aperture;

a second link having a pair of second sidebars joined by a second barrel, each second sidebar including first and second ends joined by an inner surface and an outer surface, said inner surface of one of said second sidebars facing the inner surface of the other of said second sidebars, said second sidebar first ends defining coaxial first apertures coaxial with said second barrel and said second apertures of said first link, and said second ends of said second sidebars defining coaxial second apertures coaxial with said first apertures of said first link, each second sidebar further including a substantially flat portion facing one of said annular receptacles formed in said one of said inner and outer surfaces of said first link;

a sealing member disposed in each of said receptacles and engaging said facing flat portion to seal the joint between said first and second links; and

a pin extending through said first apertures and first barrel of said first link and said second apertures of said second link to pivotally join said first link to said second

link, said pin rotatably fixed relative to said second link to prevent rotation of said pin relative to said second link.

16. The chain assembly as in claim 15, in which said sealing members are embedded in each of said sidebars.

17. The sealed chain assembly as in claim 15, in which said annular receptacle is radially spaced from said aperture around which it surrounds.

18. The sealed chain assembly as in claim 15, including a wall extending axially from said outer wall adjacent said second aperture of at least one of said sidebars of said second link, said wall engaging said pin to prevent rotation of said pin relative to said second link.

19. The sealed chain assembly as in claim 15, in which said pin sealingly engages at least one of said second apertures of said second link.

20. The sealed chain assembly as in claim 15, in which at least one of said first and second links is molded as a single piece from a plastic material.